Sub B1

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<110> HSC RESEARCH AND DEVELOPMENT LIMITED PARTNERSHIP

<120> HUMAN LYMPHOID PROTEIN TYROSINE PHOSPHATASES

<130> 3206-165

<140> PCT/CA99/00038
<141> 1999-01-18

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<170> PatentIn Ver. 2.0

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Tyr Lys Ala Asp Lys Thr Tyr Pro Thr Thr Val Ala Glu Asn Ala Lys
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aat atc aag aaa aac aga tat aag gat att ttg ccc tat gat tat agc 248
Asn Ile Lys Lys Asn Arg Tyr Lys Asp Ile Leu Pro Tyr Asp Tyr Ser
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Arg Val Glu Leu Ser Leu Ile Thr Ser Asp Glu Asp Ser Ser Tyr Ile
70 75 80 85

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Thr Gln Gly Pro Leu Ser Thr Thr Leu Leu Asp Phe Trp Arg Met Ile
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tgg gaa tat agt gtc ctt atc att gtt atg gca tgc atg gag tat gaa   440
Trp Glu Tyr Ser Val Leu Ile Ile Val Met Ala Cys Met Glu Tyr Glu
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atg gga aag aaa aag tgt gag cgc tac tgg gct gag cca gga gag atg   488
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act cga act atc tac cag ttt cat tac aag aat tgg cca gac cat gat   632
Thr Arg Thr Ile Tyr Gln Phe His Tyr Lys Asn Trp Pro Asp His Asp
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gta cct tca tct ata gac cct att ctt gag ctc atc tgg gat gta cgt   680
Val Pro Ser Ser Ile Asp Pro Ile Leu Glu Leu Ile Trp Asp Val Arg
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Cys Tyr Gln Glu Asp Asp Ser Val Pro Ile Cys Ile His Cys Ser Ala
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Gly Cys Gly Arg Thr Gly Val Ile Cys Ala Ile Val Asp Tyr Thr Trp
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atg ttg cta aaa gat ggg ata att cct gag aac ttc agt gtt ttc agt   824
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gaa caa tat gaa ctg gtc tac aat gct gta tta gaa cta ttt aag aga   920
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cag atg gat gtt atc aga gat aaa cat tct gga aca gag agt caa gca   968
Gln Met Asp Val Ile Arg Asp Lys His Ser Gly Thr Glu Ser Gln Ala
    295                 300                 305

aag cat tgt att cct gag aaa aat cac act ctc caa gca gac tct tat   1016
Lys His Cys Ile Pro Glu Lys Asn His Thr Leu Gln Ala Asp Ser Tyr
310                 315                 320                 325

tct cct aat tta cca aaa agt acc aca aaa gca gca aaa atg atg aac   1064
Ser Pro Asn Leu Pro Lys Ser Thr Thr Lys Ala Ala Lys Met Met Asn
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caa caa agg aca aaa atg gaa atc aaa gaa tct tct tcc ttt gac ttt   1112
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agg act tct gaa ata agt gca aaa gaa gag cta gtt ttg cac cct gct   1160
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aaa aat gct gac aca acc atg aaa tgg cag aca aag gca ttt cca ata   1256
Lys Asn Ala Asp Thr Thr Met Lys Trp Gln Thr Lys Ala Phe Pro Ile
390                 395                 400                 405

gtt ggg gag cct ctt cag aag cat caa agt ttg gat ttg ggc tct ctt   1304
Val Gly Glu Pro Leu Gln Lys His Gln Ser Leu Asp Leu Gly Ser Leu
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ttg ttt gag gga tgt tct aat tct aaa cct gta aat gca gca gga aga   1352
Leu Phe Glu Gly Cys Ser Asn Ser Lys Pro Val Asn Ala Ala Gly Arg
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Tyr Phe Asn Ser Lys Val Pro Ile Thr Arg Thr Lys Ser Thr Pro Phe
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gaa ttg ata cag cag aga gaa acc aag gag gtg gac agc aag gaa aac   1448
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cag gct caa aaa gta atg cat gtt tct tca gca gaa ctg aat tat tca   1544
Gln Ala Gln Lys Val Met His Val Ser Ser Ala Glu Leu Asn Tyr Ser
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ctg cca tat gac tct aaa cac caa ata cgt aat gcc tct aat gta aag   1592
Leu Pro Tyr Asp Ser Lys His Gln Ile Arg Asn Ala Ser Asn Val Lys
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cac cat gac tct agt gct ctt ggt gta tat tct tac ata cct tta gtg   1640
His His Asp Ser Ser Ala Leu Gly Val Tyr Ser Tyr Ile Pro Leu Val
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Glu Asn Pro Tyr Phe Ser Ser Trp Pro Pro Ser Gly Thr Ser Ser Lys
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His Ser Ser Leu Ser Leu Asn Ser Pro Thr Asn Ile Ser Ser Leu Leu
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aac cag gag tca gct gta cta gca act gct cca agg ata gat gat gaa   1880
Asn Gln Glu Ser Ala Val Leu Ala Thr Ala Pro Arg Ile Asp Asp Glu
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atc ccc cct cca ctt cct gta cgg aca cct gaa tca ttt att gtg gtt   1928
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gag gaa gct gga gaa ttc tca cca aat gtt ccc aaa tcc tta tcc tca   1976
Glu Glu Ala Gly Glu Phe Ser Pro Asn Val Pro Lys Ser Leu Ser Ser
630                 635                 640                 645

gct gtg aag gta aaa att gga aca tca ctg gaa tgg ggt gga aca tct   2024
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gta aaa ctc cga agt cct aaa tca gaa cta cat caa gat cgt tct tct   2120
Val Lys Leu Arg Ser Pro Lys Ser Glu Leu His Gln Asp Arg Ser Ser
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ccc cca cct cct ctc cca gaa aga act cta gag tcc ttc ttt ctt gcc   2168
Pro Pro Pro Pro Leu Pro Glu Arg Thr Leu Glu Ser Phe Phe Leu Ala
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gca aac cgt ttt tca aaa ccc aaa gga cca agg aat cca cca cca act   2456
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Pro Tyr Asp Tyr Ser Arg Val Glu Leu Ser Leu Ile Thr Ser Asp Glu
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Asp Ser Ser Tyr Ile Asn Ala Asn Phe Ile Lys Gly Val Tyr Gly Pro
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Lys Ala Tyr Ile Ala Thr Gln Gly Pro Leu Ser Thr Thr Leu Leu Asp
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Glu Pro Gly Glu Met Gln Leu Glu Phe Gly Pro Phe Ser Val Ser Cys
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Glu Ala Glu Lys Arg Lys Ser Asp Tyr Ile Ile Arg Thr Leu Lys Val
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Lys Phe Asn Ser Glu Thr Arg Thr Ile Tyr Gln Phe His Tyr Lys Asn
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Trp Pro Asp His Asp Val Pro Ser Ser Ile Asp Pro Ile Leu Glu Leu
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370 375 380

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Asp Ser Lys Glu Asn Phe Ser Tyr Leu Glu Ser Gln Pro His Asp Ser
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Tyr Ile Pro Leu Val Glu Asn Pro Tyr Phe Ser Ser Trp Pro Pro Ser
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Ser Tyr Tyr Asn Ser His Ser Ser Leu Ser Leu Asn Ser Pro Thr Asn
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Ser Phe Ile Val Val Glu Glu Ala Gly Glu Phe Ser Pro Asn Val Pro
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Thr Tyr Ser Thr Ser Tyr Pro Asp Thr Met Glu Asn Ser Thr Ser Ser
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Lys Gln Thr Leu Lys Thr Pro Gly Lys Ser Phe Thr Arg Ser Lys Ser
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Leu Lys Ile Leu Arg Asn Met Lys Lys Ser Ile Cys Asn Ser Cys Pro
755 760 765

Pro Asn Lys Pro Ala Glu Ser Val Gln Ser Asn Asn Ser Ser Ser Phe
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Ile Leu Gln Lys Phe Leu Asp Glu Ala Gln Ser Lys Lys Ile Thr Lys
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Asn Ile Lys Lys Asn Arg Tyr Lys Asp Ile Leu Pro Tyr Asp Tyr Ser
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cgg gta gaa cta tcc ctg ata acc tct gat gag gat tcc agc tac atc   296
Arg Val Glu Leu Ser Leu Ile Thr Ser Asp Glu Asp Ser Ser Tyr Ile
 70                  75                  80                  85

aat gcc aac ttc att aag gga gtt tat gga ccc aag gct tat att gcc   344
Asn Ala Asn Phe Ile Lys Gly Val Tyr Gly Pro Lys Ala Tyr Ile Ala
                 90                  95                 100

acc cag ggt cct tta tct aca acc ctc ctg gac ttc tgg agg atg att   392
Thr Gln Gly Pro Leu Ser Thr Thr Leu Leu Asp Phe Trp Arg Met Ile
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tgg gaa tat agt gtc ctt atc att gtt atg gca tgc atg gag tat gaa   440
Trp Glu Tyr Ser Val Leu Ile Ile Val Met Ala Cys Met Glu Tyr Glu
        120                 125                 130

atg gga aag aaa aag tgt gag cgc tac tgg gct gag cca gga gag atg   488
Met Gly Lys Lys Lys Cys Glu Arg Tyr Trp Ala Glu Pro Gly Glu Met
    135                 140                 145

cag ctg gaa ttt ggc cct ttc tct gta tcc tgt gaa gct gaa aaa agg   536
Gln Leu Glu Phe Gly Pro Phe Ser Val Ser Cys Glu Ala Glu Lys Arg
150                 155                 160                 165

aaa tct gat tat ata atc agg act cta aaa gtt aag ttc aat agt gaa   584
Lys Ser Asp Tyr Ile Ile Arg Thr Leu Lys Val Lys Phe Asn Ser Glu
                170                 175                 180

act cga act atc tac cag ttt cat tac aag aat tgg cca gac cat gat   632
Thr Arg Thr Ile Tyr Gln Phe His Tyr Lys Asn Trp Pro Asp His Asp
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gta cct tca tct ata gac cct att ctt gag ctc atc tgg gat gta cgt   680
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Gly Cys Gly Arg Thr Gly Val Ile Cys Ala Ile Val Asp Tyr Thr Trp
230                 235                 240                 245

atg ttg cta aaa gat ggg ata att cct gag aac ttc agt gtt ttc agt   824
Met Leu Leu Lys Asp Gly Ile Ile Pro Glu Asn Phe Ser Val Phe Ser
                250                 255                 260

ttg atc cgg gaa atg cgg aca cag agg cct tca tta gtt caa acg cag   872
Leu Ile Arg Glu Met Arg Thr Gln Arg Pro Ser Leu Val Gln Thr Gln
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gaa caa tat gaa ctg gtc tac aat gct gta tta gaa cta ttt aag aga   920
Glu Gln Tyr Glu Leu Val Tyr Asn Ala Val Leu Glu Leu Phe Lys Arg
        280                 285                 290

cag atg gat gtt atc aga gat aaa cat tct gga aca gag agt caa gca   968
Gln Met Asp Val Ile Arg Asp Lys His Ser Gly Thr Glu Ser Gln Ala
    295                 300                 305

aag cat tgt att cct gag aaa aat cac act ctc caa gca gac tct tat   1016
Lys His Cys Ile Pro Glu Lys Asn His Thr Leu Gln Ala Asp Ser Tyr
310                 315                 320                 325

tct cct aat tta cca aaa agt acc aca aaa gca gca aaa atg atg aac   1064
Ser Pro Asn Leu Pro Lys Ser Thr Thr Lys Ala Ala Lys Met Met Asn
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caa caa agg aca aaa atg gaa atc aaa gaa tct tct tcc ttt gac ttt   1112
Gln Gln Arg Thr Lys Met Glu Ile Lys Glu Ser Ser Ser Phe Asp Phe
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agg act tct gaa ata agt gca aaa gaa gag cta gtt ttg cac cct gct   1160
Arg Thr Ser Glu Ile Ser Ala Lys Glu Glu Leu Val Leu His Pro Ala
        360                 365                 370

aaa tca agc act tct ttt gac ttt ctg gag cta aat tac agt ttt gac   1208
Lys Ser Ser Thr Ser Phe Asp Phe Leu Glu Leu Asn Tyr Ser Phe Asp
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aaa aat gct gac aca acc atg aaa tgg cag aca aag gca ttt cca ata   1256
Lys Asn Ala Asp Thr Thr Met Lys Trp Gln Thr Lys Ala Phe Pro Ile
390                 395                 400                 405

gtt ggg gag cct ctt cag aag cat caa agt ttg gat ttg ggc tct ctt   1304
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Val Gly Glu Pro Leu Gln Lys His Gln Ser Leu Asp Leu Gly Ser Leu
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tat ttt aat tca aag gtg cca ata aca cgg acc aaa tca act cct ttt   1400
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gaa ttg ata cag cag aga gaa acc aag gag gtg gac agc aag gaa aac   1448
Glu Leu Ile Gln Gln Arg Glu Thr Lys Glu Val Asp Ser Lys Glu Asn
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ttt tct tat ttg gaa tct caa cca cat gat tct tgt ttt gta gag atg   1496
Phe Ser Tyr Leu Glu Ser Gln Pro His Asp Ser Cys Phe Val Glu Met
470                 475                 480                 485

cag gct caa aaa gta atg cat gtt tct tca gca gaa ctg aat tat tca   1544
Gln Ala Gln Lys Val Met His Val Ser Ser Ala Glu Leu Asn Tyr Ser
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ctg cca tat gac tct aaa cac caa ata cgt aat gcc tct aat gta aag   1592
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cac cat gac tct agt gct ctt ggt gta tat tct tac ata cct tta gtg   1640
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gaa aat cct tat ttt tca tca tgg cct cca agt ggt acc agt tct aag   1688
Glu Asn Pro Tyr Phe Ser Ser Trp Pro Pro Ser Gly Thr Ser Ser Lys
    535                 540                 545

atg tct ctt gat tta cct gag aag caa gat gga act gtt ttt cct tct   1736
Met Ser Leu Asp Leu Pro Glu Lys Gln Asp Gly Thr Val Phe Pro Ser
550                 555                 560                 565

tct ctg ttg cca aca tcc tct aca tcc ctc ttc tct tat tac aat tca   1784
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cat agt tct tta tca ctg aat tct cca acc aat att tcc tca cta ttg   1832
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630                 635                 640                 645

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Glu Pro Lys Lys Phe Asp Asp Ser Val Ile Leu Arg Pro Ser Lys Ser
            665                 670                 675

gta aaa ctc cga agt cct aaa tca ggt aaa aat ttc tct tgg ctt       2117
Val Lys Leu Arg Ser Pro Lys Ser Gly Lys Asn Phe Ser Trp Leu
        680                 685                 690

tagatgacat ttagccctaa gattggaaga atggttcgtt aagtttagag taattcactt 2177

caggaagtta cttggttccc ataatagctt ccagtattca ttgatttatt tctggctttc 2237

ccagactaga aattttgtaa agagtcatgg gggaagctag ggctaaccag aaaataaaat 2297

aaaaataatg ggataaaaaa tcggaactac tgttttcccc ctagtcggag cacatccgg  2356


<210> 4
<211> 692
<212> PRT
<213> Homo sapiens

<400> 4
Met Asp Gln Arg Glu Ile Leu Gln Lys Phe Leu Asp Glu Ala Gln Ser
  1               5                  10                  15

Lys Lys Ile Thr Lys Glu Glu Phe Ala Asn Glu Phe Leu Lys Leu Lys
            20                  25                  30

Arg Gln Ser Thr Lys Tyr Lys Ala Asp Lys Thr Tyr Pro Thr Thr Val
        35                  40                  45

Ala Glu Asn Ala Lys Asn Ile Lys Lys Asn Arg Tyr Lys Asp Ile Leu
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     50                  55                  60

Pro Tyr Asp Tyr Ser Arg Val Glu Leu Ser Leu Ile Thr Ser Asp Glu
 65                  70                  75                  80

Asp Ser Ser Tyr Ile Asn Ala Asn Phe Ile Lys Gly Val Tyr Gly Pro
                 85                  90                  95

Lys Ala Tyr Ile Ala Thr Gln Gly Pro Leu Ser Thr Thr Leu Leu Asp
            100                 105                 110

Phe Trp Arg Met Ile Trp Glu Tyr Ser Val Leu Ile Ile Val Met Ala
        115                 120                 125

Cys Met Glu Tyr Glu Met Gly Lys Lys Lys Cys Glu Arg Tyr Trp Ala
    130                 135                 140

Glu Pro Gly Glu Met Gln Leu Glu Phe Gly Pro Phe Ser Val Ser Cys
145                 150                 155                 160

Glu Ala Glu Lys Arg Lys Ser Asp Tyr Ile Ile Arg Thr Leu Lys Val
                165                 170                 175

Lys Phe Asn Ser Glu Thr Arg Thr Ile Tyr Gln Phe His Tyr Lys Asn
            180                 185                 190

Trp Pro Asp His Asp Val Pro Ser Ser Ile Asp Pro Ile Leu Glu Leu
        195                 200                 205

Ile Trp Asp Val Arg Cys Tyr Gln Glu Asp Asp Ser Val Pro Ile Cys
    210                 215                 220

Ile His Cys Ser Ala Gly Cys Gly Arg Thr Gly Val Ile Cys Ala Ile
225                 230                 235                 240

Val Asp Tyr Thr Trp Met Leu Leu Lys Asp Gly Ile Ile Pro Glu Asn
                245                 250                 255

Phe Ser Val Phe Ser Leu Ile Arg Glu Met Arg Thr Gln Arg Pro Ser
            260                 265                 270

Leu Val Gln Thr Gln Glu Gln Tyr Glu Leu Val Tyr Asn Ala Val Leu
        275                 280                 285

Glu Leu Phe Lys Arg Gln Met Asp Val Ile Arg Asp Lys His Ser Gly
    290                 295                 300

Thr Glu Ser Gln Ala Lys His Cys Ile Pro Glu Lys Asn His Thr Leu
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305 310 315 320

Gln Ala Asp Ser Tyr Ser Pro Asn Leu Pro Lys Ser Thr Thr Lys Ala
325 330 335

Ala Lys Met Met Asn Gln Gln Arg Thr Lys Met Glu Ile Lys Glu Ser
340 345 350

Ser Ser Phe Asp Phe Arg Thr Ser Glu Ile Ser Ala Lys Glu Glu Leu
355 360 365

Val Leu His Pro Ala Lys Ser Ser Thr Ser Phe Asp Phe Leu Glu Leu
370 375 380

Asn Tyr Ser Phe Asp Lys Asn Ala Asp Thr Thr Met Lys Trp Gln Thr
385 390 395 400

Lys Ala Phe Pro Ile Val Gly Glu Pro Leu Gln Lys His Gln Ser Leu
405 410 415

Asp Leu Gly Ser Leu Leu Phe Glu Gly Cys Ser Asn Ser Lys Pro Val
420 425 430

Asn Ala Ala Gly Arg Tyr Phe Asn Ser Lys Val Pro Ile Thr Arg Thr
435 440 445

Lys Ser Thr Pro Phe Glu Leu Ile Gln Gln Arg Glu Thr Lys Glu Val
450 455 460

Asp Ser Lys Glu Asn Phe Ser Tyr Leu Glu Ser Gln Pro His Asp Ser
465 470 475 480

Cys Phe Val Glu Met Gln Ala Gln Lys Val Met His Val Ser Ser Ala
485 490 495

Glu Leu Asn Tyr Ser Leu Pro Tyr Asp Ser Lys His Gln Ile Arg Asn
500 505 510

Ala Ser Asn Val Lys His His Asp Ser Ser Ala Leu Gly Val Tyr Ser
515 520 525

Tyr Ile Pro Leu Val Glu Asn Pro Tyr Phe Ser Ser Trp Pro Pro Ser
530 535 540

Gly Thr Ser Ser Lys Met Ser Leu Asp Leu Pro Glu Lys Gln Asp Gly
545 550 555 560

Thr Val Phe Pro Ser Ser Leu Leu Pro Thr Ser Ser Thr Ser Leu Phe

565 570 575

Ser Tyr Tyr Asn Ser His Ser Ser Leu Ser Leu Asn Ser Pro Thr Asn
580 585 590

Ile Ser Ser Leu Leu Asn Gln Glu Ser Ala Val Leu Ala Thr Ala Pro
595 600 605

Arg Ile Asp Asp Glu Ile Pro Pro Pro Leu Pro Val Arg Thr Pro Glu
610 615 620

Ser Phe Ile Val Val Glu Glu Ala Gly Glu Phe Ser Pro Asn Val Pro
625 630 635 640

Lys Ser Leu Ser Ser Ala Val Lys Val Lys Ile Gly Thr Ser Leu Glu
645 650 655

Trp Gly Gly Thr Ser Glu Pro Lys Lys Phe Asp Asp Ser Val Ile Leu
660 665 670

Arg Pro Ser Lys Ser Val Lys Leu Arg Ser Pro Lys Ser Gly Lys Asn
675 680 685

Phe Ser Trp Leu
690

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<212> PRT
<213> Mus musculus

<400> 5
Met Asp Gln Arg Glu Ile Leu Gln Gln Leu Leu Lys Glu Ala Gln Lys
1 5 10 15

Lys Lys Leu Asn Ser Glu Glu Phe Ala Ser Glu Phe Leu Lys Leu Lys
20 25 30

Arg Gln Ser Thr Lys Tyr Lys Ala Asp Lys Ile Tyr Pro Thr Thr Val
35 40 45

Ala Gln Arg Pro Lys Asn Ile Lys Lys Asn Arg Tyr Lys Asp Ile Leu
50 55 60

Pro Tyr Asp His Ser Leu Val Glu Leu Ser Leu Leu Thr Ser Asp Glu
65 70 75 80

Asp Ser Ser Tyr Ile Asn Ala Ser Phe Ile Lys Gly Val Tyr Gly Pro
85 90 95

Lys Ala Tyr Ile Ala Thr Gln Gly Pro Leu Ser Thr Thr Leu Leu Asp
100 105 110

Phe Trp Arg Met Ile Trp Glu Tyr Arg Ile Leu Val Ile Val Met Ala
115 120 125

Cys Met Glu Phe Glu Met Gly Lys Lys Lys Cys Glu Arg Tyr Trp Ala
130 135 140

Glu Pro Gly Glu Thr Gln Leu Gln Phe Gly Pro Phe Ser Ile Ser Cys
145 150 155 160

Glu Ala Glu Lys Lys Lys Ser Asp Tyr Lys Ile Arg Thr Leu Lys Ala
165 170 175

Lys Phe Asn Asn Glu Thr Arg Ile Ile Tyr Gln Phe His Tyr Lys Asn
180 185 190

Trp Pro Asp His Asp Val Pro Ser Ser Ile Asp Pro Ile Leu Gln Leu
195 200 205

Ile Trp Asp Met Arg Cys Tyr Gln Glu Asp Asp Cys Val Pro Ile Cys
210 215 220

Ile His Cys Ser Ala Gly Cys Gly Arg Thr Gly Val Ile Cys Ala Val
225 230 235 240

Asp Tyr Thr Trp Met Leu Leu Lys Asp Gly Ile Ile Pro Lys Asn Phe
245 250 255

Ser Val Phe Asn Leu Ile Gln Glu Met Arg Thr Gln Arg Pro Ser Leu
260 265 270

Val Gln Thr Gln Glu Gln Tyr Glu Leu Val Tyr Ser Ala Val Leu Glu
275 280 285

Leu Phe Lys Arg His Met Asp Val Ile Ser Asp Asn His Leu Gly Arg
290 295 300

Glu Ile Gln Ala Gln Cys Ser Ile Pro Glu Gln Ser Leu Thr Val Glu
305 310 315 320

Ala Asp Ser Cys Pro Leu Asp Leu Pro Lys Asn Ala Met Arg Asp Val
325 330 335

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Lys Thr Thr Asn Gln His Ser Lys Gln Gly Ala Glu Ala Glu Ser Thr
          340                 345                 350

Gly Gly Ser Ser Leu Gly Leu Arg Thr Ser Thr Met Asn Ala Glu Glu
      355                 360                 365

Glu Leu Val Leu His Ser Ala Lys Ser Ser Pro Ser Phe Asn Cys Leu
  370                 375                 380

Glu Leu Asn Cys Gly Cys Asn Asn Lys Ala Val Ile Thr Arg Asn Gly
385                 390                 395                 400

Gln Ala Arg Ala Ser Pro Val Val Gly Glu Pro Leu Gln Lys Tyr Gln
              405                 410                 415

Ser Leu Asp Phe Gly Ser Met Leu Phe Gly Ser Cys Pro Ser Ala Leu
          420                 425                 430

Pro Ile Asn Thr Ala Asp Arg Tyr His Asn Ser Lys Gly Pro Val Lys
      435                 440                 445

Arg Thr Lys Ser Thr Pro Phe Glu Leu Ile Gln Gln Arg Lys Thr Asn
  450                 455                 460

Asp Leu Ala Val Gly Asp Gly Phe Ser Cys Leu Glu Ser Gln Leu His
465                 470                 475                 480

Glu His Tyr Ser Leu Arg Glu Leu Gln Val Gln Arg Val Ala His Val
              485                 490                 495

Ser Ser Glu Glu Leu Asn Tyr Ser Leu Pro Gly Ala Cys Asp Ala Ser
          500                 505                 510

Cys Val Pro Arg His Ser Pro Gly Ala Leu Arg Val His Leu Tyr Thr
      515                 520                 525

Ser Leu Ala Glu Asp Pro Tyr Phe Ser Ser Ser Pro Pro Asn Ser Ala
  530                 535                 540

Asp Ser Lys Met Ser Phe Asp Leu Pro Glu Lys Gln Asp Gly Ala Thr
545                 550                 555                 560

Ser Pro Gly Ala Leu Leu Pro Ala Ser Ser Thr Thr Ser Phe Phe Tyr
              565                 570                 575

Ser Asn Pro His Asp Ser Leu Val Met Asn Thr Leu Thr Ser Phe Ser
          580                 585                 590
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Pro Pro Leu Asn Gln Glu Thr Ala Val Glu Ala Pro Ser Arg Arg Thr
        595                 600                 605

Asp Asp Glu Ile Pro Pro Pro Leu Pro Glu Arg Thr Pro Glu Ser Phe
    610                 615                 620

Ile Val Val Glu Glu Ala Gly Glu Pro Ser Pro Arg Val Thr Glu Ser
625                 630                 635                 640

Leu Pro Leu Val Val Thr Phe Gly Ala Ser Pro Glu Cys Ser Gly Thr
                645                 650                 655

Ser Glu Met Lys Ser His Asp Ser Val Gly Phe Thr Pro Ser Lys Asn
            660                 665                 670

Val Lys Leu Arg Ser Pro Lys Ser Asp Arg His Gln Asp Gly Ser Pro
        675                 680                 685

Pro Pro Pro Leu Pro Glu Arg Thr Leu Glu Ser Phe Phe Leu Ala Asp
    690                 695                 700

Glu Asp Cys Ile Gln Ala Gln Ala Val Gln Thr Ser Ser Thr Ser Tyr
705                 710                 715                 720

Pro Glu Thr Thr Glu Asn Ser Thr Ser Ser Lys Gln Thr Leu Arg Thr
                725                 730                 735

Pro Gly Lys Ser Phe Thr Arg Ser Lys Ser Leu Lys Ile Phe Arg Asn
            740                 745                 750

Met Lys Lys Ser Val Cys Asn Ser Ser Ser Pro Ser Lys Pro Thr Glu
        755                 760                 765

Arg Val Gln Pro Lys Asn Ser Ser Ser Phe Leu Asn Phe Gly Phe Gly
    770                 775                 780

Asn Arg Phe Ser Lys Pro Lys Gly Pro Arg Asn Pro Pro Ser Ala Trp
785                 790                 795                 800

Asn Met
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<210> 6
<211> 82
<212> DNA
<213> Homo sapiens

<400> 6
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aagattggaa gaatggttcg tt 82

<210> 7
<211> 14
<212> PRT
<213> Homo sapiens

<400> 7
Lys Leu Arg Ser Pro Lys Ser Gly Lys Asn Phe Ser Trp Leu
1 5 10